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CLAIMS

- A bioartificial implant comprising a semiperme able barrier designed
 - from one side to allow diffusion or prevent diffusion of predetermined substances/materials/molecules/ cells/cell lines produced in the human body to the other opposite side of the barrier, and
- from said other opposite side to allow diffusion or prevent diffusion of predetermined substances which are the same as or different from the first mentioned substances/materials/molecules/cells/cell lines,
- characterised in that the semipermeable barrier has a surface coating of a bioactive metal, such as titanium, said surface coating being permeable to allow or prevent said diffusions.
 - 2. A bioartificial implant comprising a semipermeable barrier designed,
- from one side to allow diffusion of body cell nutrient and oxygen from a donee's body to the other opposite side of the barrier where body organ/cells from a donor are positioned, and
 - from said other opposite side to allow diffusion of substances selected in advance, produced by the donor's body organ/cells,
 - characterised in that the semipermeable barrier has a surface coating on said one side of
 - a bioactive metal, such as titanium, which surface coating is permeable to allow said diffusions.
 - 3. An implant as claimed in claim 1 or 2, characterised in that the metal is applied by an atomising process, such as sputtering or evaporation.
- 4. An implant as claimed in any one of claims 1-3, 35 characterised in that it is in the form of a container.

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- 5. An implant as claimed in any one of claims 1-4, c h a r a c t e r i s e d in that the barrier has said surface coating on both sides.
- 6. An implant as claimed in any one of claims 1-5, c h a r a c t e r i s e d in that the coating/coatings has/have a thickness from about 5 nm, such as about 50-250 nm.
 - 7. Use of the implant as claimed in any one of claims 1-6 as bioartificial pancreas.
- 8. Use of the implant as claimed in any one of claims 1, 3-6 as part of a sensor on a measuring instrument.

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- 9. A method for reducing the risk of formation/
 growth of connective tissue in connection with an implant
 comprising a semipermeable barrier, characterised in that the barrier is provided at least on one
 side with a permeable coating of bioactive metal.
 - 10. A method as claimed in claim 9, characterised in that the coating is prepared by atomising (sputtering, evaporation).